



IFD

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Rapoport, et al.

Serial No.: 10/788,575

Filed: February 26, 2004

For: METHOD AND APPARATUSES
OF ESTIMATING THE POSITION
OF A MOBILE USER IN A
SYSTEM OF SATELLITE
DIFFERENTIAL NAVIGATION

Art Unit: 3662

Examiner: Unknown

Atty. Dkt.: 07G7-108631

**CERTIFICATE OF
MAILING/TRANSMISSION
(37 C.F.R. § 1.8A)**

I hereby certify that this correspondence is, on
the date shown below, being:

deposited with the United States Postal
Service with sufficient postage as first class mail
in an envelope addressed to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450.

transmitted by facsimile to the Patent and
Trademark Office.

6/18/04

Date


Jordan Wilson

**INFORMATION DISCLOSURE STATEMENT
PURSUANT TO 37 C.F.R. §1.56 AND §§1.97-1.98**

Commissioner for Patents
P.O. Box 1450
Alexandria, CA 22313-1450

Sir:

The citations listed on the enclosed PTO-1449 Form are submitted under 37 C.F.R.
§§1.97 and 1.98, and in compliance with the duty of disclosure as defined in 37 C.F.R. §1.56.

The Examiner is requested to make these citations officially of record in the application.
This Information Disclosure Statement is being submitted before receipt of the first Office
Action for the above-identified application, therefore, pursuant to 37 C.F.R. §1.97, no fee or
certification is required.

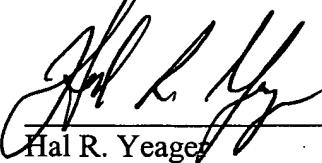
This Information Disclosure Statement is not to be construed as a representation or
admission that the listed citation, by itself or in combination with other information, is material
to patentability, is, in fact, prior art, or establishes or a *prima facie* case of unpatentability of any

claim in the above-identified application. Additionally, this Information Disclosure Statement is not to be construed as a representation that a further search of the art has been made by Applicants, or that additional information relevant to the examination of this application does not exist unbeknownst to Applicants.

Date: June 18, 2004

Respectfully submitted,

Sheppard Mullin
Richter & Hampton LLP
Four Embarcadero Center, 17-th Floor
San Francisco, CA 94111
Tel: (415) 774-3203
Fax: (415) 434-3947


Hal R. Yeager
Registration No. 35,419

| | | | |
|--|--|-----------------------------------|-------------------------|
| FORM PTO-1449 (Modified) | | ATTY. DOCKET NO. | SERIAL NO. |
| LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT(S) INFORMATION DISCLOSURE STATEMENT | | 07G7-108631 | 10/788,575 |
| (Use several sheets if necessary) | | APPLICANT: Rapoport, et al. | |
| | | FILING DATE: February 26, 2004 | GROUP ART UNIT: 3662 |

U.S. Patent and Trademark Office
JUN 21 2004

REFERENCE DESIGNATION

U.S. PATENT DOCUMENTS

| EXAM'R INITIAL | | DOCUMENT NUMBER | DATE | NAME | Class | Subclass | Filing Date If Appropriate |
|-------------------|----|--------------------|------------|---------------------|-------|----------|-------------------------------|
| | A1 | 4,812,991 | 03/14/1999 | Hatch | 701 | 225 | |
| | A2 | 5,451,964 | 09/15/1995 | Babu | 342 | 357.06 | |
| | A3 | 5,502,641 | 03/26/1996 | Isomura | 701 | 215 | |
| | A4 | 6,268,824 | 07/31/2001 | Zhodzishsky, et al. | 342 | 357.04 | |
| | A | | | | | | |

FOREIGN PATENT DOCUMENTS

| EXAM'R INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | Subclass | TRANSLAT'N | |
|-------------------|---|--------------------|------|---------|-------|----------|------------|----|
| | | | | | | | yes | no |
| | B | | | | | | | |
| | B | | | | | | | |

OTHER ART (Include Author, Title, Date, Pertinent Pages, Etc.)

| | | |
|--|----|---|
| | C1 | J. Wilkinson and C. Reinsch, <u>Linear Algebra</u> , <u>Handbook for Automatic Computation</u> , Vol. 2, publisher: Springer-Verlag, New York, 1971, pages 10-30. |
| | C2 | "Methods for Modifying Matrix Factorizations" by P.E. Gill, G.H. Golub, W. Murray, and M.A. Saunders (<u>Mathematics of Computation</u> , Vol. 28, No. 126, April 1974, pp. 505-535) |
| | C3 | Kendall E. Atkinson, <u>An Introduction to Numerical Analysis</u> , publisher: John Wiley & Sons, 1978, pages 450-454. |
| | C4 | Gene Golub and Charles Van Loan, <u>Matrix Computations</u> , publisher: The Johns Hopkins University Press, Baltimore, Maryland, pages 81-86, 1983. |
| | C5 | Bradford W. Parkinson, James J. Spilker, Jr., <u>Global Positioning System: Theory and Applications</u> ; Vol. 1; vol. 163, <u>Progress in Astronautics and Aeronautics</u> , Published by American Institute of Aeronautics and Astronautics, Inc., Copyright 1996, pp. 245-433. |
| | C6 | Bradford W. Parkinson, James J. Spilker, Jr., <u>Global Positioning System: Theory and Applications</u> ; vol. II; vol. 163, <u>Progress in Astronautics and Aeronautics</u> , Published by American Institute of Aeronautics and Astronautics, Inc., Copyright 1996, pp. 3-50 and 275-301. |

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant(s).

| | | |
|--|-----------------------------------|-------------------------|
| FORM PTO-1449 (Modified) | ATTY. DOCKET NO. | SERIAL NO. |
|  U.S. PATENT AND TRADEMARK OFFICE | 07G7-108631 | 10/788,575 |
| | APPLICANT: Rapoport, et al. | |
| | FILING DATE: February 26, 2004 | GROUP ART UNIT: 3662 |

| REFERENCE DESIGNATION | | U.S. PATENT DOCUMENTS | | | | | |
|-----------------------|---|-----------------------|------|------|-------|----------|----------------------------|
| EXAM'R INITIAL | | DOCUMENT NUMBER | DATE | NAME | Class | Subclass | Filing Date If Appropriate |
| | A | | | | | | |
| | A | | | | | | |
| | A | | | | | | |

| FOREIGN PATENT DOCUMENTS | | | | | | | |
|--------------------------|---|-----------------|------|---------|-------|----------|-------------|
| EXAM'R INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | Subclass | TRANSLAT'N |
| | | | | | | | yes no |
| | B | | | | | | |
| | B | | | | | | |

| OTHER ART (Include Author, Title, Date, Pertinent Pages, Etc.) | | |
|--|-----|--|
| | C7 | Elliott Kaplan, Chapter 8 of "Understanding GPS: principles and applications," Artech House, 1996, pp. 321-383, ISBN 0-89006-793-7. |
| | C8 | Janet Brown Neumann, et al., "Test Results from a New 2 cm Real Time Kinematic GPS Positioning System," Proceedings of the 9th International Technical Meeting of the Satellite Division of the Institute of Navigation ION GPS-96, Sep. 17, 1996, pp. 873-882. |
| | C9 | Dr. Dariusz Lapucha, Richard A. Barker, "Dual Baseline Real-Time OTF Kinematic GPS," Proceedings of the 9th International Technical Meeting of the Satellite Division of the Institute of Navigation ION GPS-96, Sep. 17, 1996, pp. 883-888. |
| | C10 | P.J.G. Teunissen, et al., "The Volume of the GPS Ambiguity Search Space and its Relevance for Integer Ambiguity Resolution," Proceedings of the 9th International Technical Meeting of the Satellite Division of the Institute of Navigation ION GPS-96, Sep. 17, 1996, pp. 889-898. |
| | C11 | Davis Walsh, et al., "GPS and GLONASS Carrier Phase Ambiguity Resolution," Proceedings of the 9th International Technical Meeting of the Satellite Division of the Institute of Navigation ION GPS-96, Sep. 17, 1996, pp. 899-907. |
| | C12 | Dmitry Kozlov et al., "Instant RTK cm with Low Cost GPS+Glonass C/A Receivers," Proceedings of the 10th International Technical Meeting of the Satellite Division of the Institute of Navigation ION GPS-97, Sep. 16, 1997, pp. 1559-1569. |

| | |
|----------|-----------------|
| EXAMINER | DATE CONSIDERED |
|----------|-----------------|

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant(s).